First Reported Case of Canine Ocular Thelaziosis in the UK

We would like to bring to the attention of the veterinary community, a case of canine ocular thelaziosis in the UK. In March 2016, during a routine general anaesthetic for elective surgery, worms were observed on the conjunctiva of an otherwise healthy 1 year old male Collie cross. This dog had been imported from Romania 6 weeks earlier, where the "oriental eye worm" *Thelazia callipaeda* has recently been identified as endemic (Mihalca and others 2015). We suspect this is an imported case of canine ocular thelaziosis. All visible worms were removed manually whilst the animal was under anaesthesia and submitted to Liverpool Veterinary Parasitology Diagnostics (LVPD) for further analysis. The dog was treated with a single dose of 10% imidacloprid and 2.5% moxidectin (Advocate Spot-On; Bayer Health Care) in line with best current practice, following which no further problems have been reported (Caron and others 2013).

The worms were examined by light microscopy and identified as *Thelazia callipaeda* (six female) based on morphological features described by Otranto and others (2003) i.e. transverse cuticular striations, the presence of a buccal capsule, filariform oesophagus and the position of the vulva anterior to the oesophagus-intestinal junction.

Whilst additional analysis via PCR to confirm species as *T. callipaeda* is pending, we feel it important to report the findings thus far, as to our knowledge this is the first report of canine ocular thelaziosis in the UK. There has been an abundance of publications in recent years documenting the spread of *T. callipaeda* to several European countries including France, Italy, Spain, Portugal, Greece, Belgium, Germany, Romania, Croatia and Serbia. *T. callipaeda* is a vector-borne parasite requiring an obligate intermediate host, which in Europe has been identified as the male drosophilid fruit fly *Phortica variegata*. Transmission occurs through flies ingesting L1 larvae whilst feeding on lacrimal secretions; following a 14+ day developmental period, infective L3 larvae are then deposited as the fly feeds on a new host. *P. variegata* has been recorded in the UK, meaning *T. callipaeda* has the potential to become endemic in this country (Otranto and others 2006).

In addition to dogs, *T. callipaeda* is a zoonosis and is capable of infecting several other mammalian species including cats and rabbits. Although infection is often apathogenic as in this case, clinical signs including severe conjunctivitis and corneal ulceration have been reported in both people and animals with potentially serious long-term sequelae.

This case raises awareness of a new imported disease and highlights the on-going risks associated with pet travel and importation, and the need for vigilance when examining these animals.

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